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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,590	04/23/2001	Moshe Czeiger	22350/16	3796

7590 09/21/2004

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EXAMINER

NANO, SARGON N

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,590

Applicant(s)

CZEIGER ET AL.

Examiner

Sargon N Nano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2 Aug 01, 25 Oct 01, 3 April 03
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

This action is responsive to the application filed on April 23, 2001. Claims 1 – 13 are pending examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. U.S. Patent No. 6,457,049.

As to claim 1, Lewis teaches an apparatus for transferring data between first and second networks via a central network there between, comprising:

a first interface coupled between the first network, which operates according to a Channel protocol, and the central network (see col.3, lines 13 – 18 Lewis teaches the integration of sub client into the enterprise software system), which operate according to a protocol different from the Channel protocol, the first interface comprising a memory containing a look-up table that includes a second network destination address, and being adapted to receive from a client on the first network an initial data-frame comprising the second network-destination address, and to

derive a second interface-address from the look-up table using the second-network destination-address as an index to the table (see col. 3, lines 23 - 46 Lewis teaches the consulting of the look-up table to route the communication to the appropriate destination as well as determining the appropriate protocol that needs to be used to perform a task), and to concatenate the second interface address to the initial data frame so as to form a concatenated data frame, and to convert the concatenated data-frame to a plurality of sub frames responsive to a length of the concatenated data-frame (see col.3 lines 47 – 60 Lewis teaches the reconfiguring of the communication to the appropriate data structure before routing the information to the client) , each sub-frame comprising a respective counter, and to convey the plurality of sub frames to the central network for delivery to the second interface address (see col.8 , lines 51 – 61 Lewis teaches the plurality of sub frames can be achieved by pre-configuring the mid ware to handle the kinds of jobs) ; and a second interface coupled between the central network and the second network, which operates according to the Channel protocol (see col. 4 line 66 – col. 5 line 16, Lewis teaches the network interface for coupling the enterprise system to the plurality of sub clients), the second interface being adapted to receive the plurality of sub-frames at the second-interface-address, and to convey a respective acknowledgment of receipt of each of the plurality of sub-frames to the first interface, and to recover the initial data-frame from the plurality of sub-frames responsive to the respective counters, and to convey the recovered data-frame to the second network for delivery to the second-network-destination address (see col. 10 line 63

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– col. 11 line Lewis teaches the acknowledgement receipt of the plurality of sub-frames from multiple sub client and the recovery of missing information by querying the non- responding sub client) ;

wherein the first interface is adapted to resend one or more of the plurality of sub-frames to the second interface responsive to not receiving the acknowledgment of the respective sub-frame, and wherein the second interface is adapted to check if a resent sub-frame has already been received therein, and responsive thereto, to ignore the resent sub-frame (see col. 17 lines 36 - col. 18 line 4 Lewis teaches the retransmission of subtasks when the response is not received from sub clients).

Lewis does not explicitly teach the “Fiber Channel Protocol”. Official notice is taken that one of the ordinary skill in the art at the time of the invention would modify Lewis to use Fiber Channel Protocol because doing so would allow to develop practical, inexpensive, yet expandable means for quickly transferring data between workstations, main frame, desktop computers, storage devices, displays and other peripherals.

As to claim 2, Lewis teaches an apparatus according to claim 1, wherein the second interface comprises a second-interface memory containing a second-interface look-up table that includes a first network destination-address, the second interface being adapted to receive from a second-network client on the second network a second-network initial data-frame comprising the first-network-destination-address, and to derive a first-interface-address from the second interface look-up table using the first network destination-address as an index to the second-interface look-up table, and to concatenate the first interface address to the second-network initial data-frame to form a

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second-network concatenated data-frame (see col. 3 lines 36 – 46 Lewis teaches the table that defines what sub client is responsible for what task after consulting the look up table when a request is received by the middleware), and to convey the second-network concatenated data-frame to the central network for delivery to the first-interface-address, and wherein the first interface is adapted to receive the second-network concatenate data-frame at the first interface address (see col. 3 line 60 – line 63 Lewis teaches the reception of the response by middleware), and to recover the second-network initial data-frame from the second--network concatenated data-frame and to convey the recovered second-network data-frame to the first network for delivery to the first-network-destination address (see col.3 line 64 – col. 4 line 8, Lewis teaches the reception of the response by the middleware and forwarding the response to the assigned destination).

As to claim 3 Lewis teaches an apparatus comprising a central processing unit (CPU) which is coupled to the first interface and which is adapted to control the first interface (see col. 3 lines 12 – 20 Lewis teaches the integration of the of subclient and the middleware which are coupled together in a network).

As to claim 4, Lewis teaches an apparatus wherein the CPU is adapted to generate the look-up table in the memory (see col. 3 lines 36 – 43 Lewis teaches the tables are maintained in the generated, maintained and saved in the mid ware).

As to claim 5, Lewis teaches an apparatus for transferring data between first and second networks via a central network there between, Lewis does not explicitly teach

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the first interface is adapted to set a length of each of the plurality of sub-frames to be no greater than a predetermined maximum transmit unit length of one of the networks.

Official notice is taken that one of the ordinary skill in the art at the time of the invention would be able to determine the maximum transit unit length of one of the networks because doing so would avoid the crashing of the network.

As to claim 6, Lewis teaches an apparatus wherein the protocol comprises an Ethernet protocol (see col.3, lines 36 – 43, Lewis teaches the Ethernet protocol for communication).

As to claim 7, Lewis teaches an apparatus wherein the memory comprises a content addressable memory (see col. 13 lines 7- 13 Lewis teaches the addressable memory that stores and executes code to executes functions).

Claims 8 – 13 do not teach or define any additional limitation over claim 1 – 7 and therefore are rejected for similar reasons.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Switch Element For Fiber channel Networks by Purohit et al., U.S. Patent No. 5,519,695.
- ATM / Sonet Network Enhanced As a Universal Computer System Interconnect. by Boggs et al., U.S. Patent No. 5,959,994.

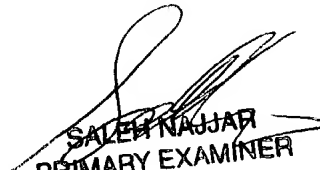
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sargon N Nano whose telephone number is (703) 305-4651. The examiner can normally be reached from 8:30 – 5:30

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308- 7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sargon Nano
Patent examiner
Sep 17, 2004


SARGON NANO
PRIMARY EXAMINER